CALIFORNIA HIGH-SPEED RAIL AUTHORITY

MONTHLY MEETING

TRANSCRIPT OF PROCEEDINGS

DEPARTMENT OF HEALTH CARE SERVICES AUDITORIUM

1500 CAPITOL AVE.

SACRAMENTO, CA 95814

TUESDAY, JANUARY 12, 2016

10:00 A.M.

Reported by: Kent Odell

APPEARANCES

BOARD MEMBERS

Dan Richard, Chairman

Tom Richards, Vice Chair

Thea Selby, Vice Chair

Michael Rossi

Daniel Curtin

Lou Correa

STAFF

Jeff Morales, Chief Executive Officer

Janice Neibel, Acting Secretary

Margaret Cederoth

Scott Jarvis

Russell G. Fong

SPECIAL PRESENTATION:

David Hochschild, California Energy Commission

ALSO PRESENT

John Chavez, Chowchilla City Council

Nathan Whipple

Robert Allen

APPEARANCES (CONT.)

ALSO PRESENT(CONT.)

Ivor Samson, SunnyGem

Marvin Dean, Kern Minority Contractors Association

Frank Oliveira, Citizens for California HSR Accountability

INDEX

P R O C E E D I N G S

10:11 a.m.

PROCEEDINGS BEGIN AT 10:11 A.M.

SACRAMENTO, CALIFORNIA, TUESDAY, JANUARY 12, 2016

CHAIRMAN RICHARD: Good morning, everybody. This meeting of the California High-Speed Rail Authority will come to order.

And could I ask the Secretary to please call the roll?

(Colloquy between Board Members.)

MS. NEIBEL: Director Schenk?

Is absent.

MS. NEIBEL: Vice Chair Richards?

VICE CHAIR RICHARDS: Here.

MS. NEIBEL: Vice Chair Selby?

VICE CHAIR SELBY: Here.

MS. NEIBEL: Director Rossi?

BOARD MEMBER ROSSI: Here.

MS. NEIBEL: Director Curtin?

BOARD MEMBER CURTIN: Here.

MS. NEIBEL: Director Correa?

BOARD MEMBER CORREA: Here

MS. NEIBEL: Chair Richard?

CHAIRMAN RICHARD: Here.

Okay, do we have the image of the flag up? Okay.

Will you please join in honoring America with the Pledge of Allegiance?

(The Pledge of Allegiance is made.)

CHAIRMAN RICHARD: So we wish everybody a Happy New Year, Feliz año Nuevo, and we'll start with the public comment section. And as we always do we begin with public officials first and then take all the other comments in the order in which they were received.

So first, we'd like to welcome Council Member John Chavez from the City of Chowchilla.

Councilmember, good morning.

COUNCILMEMBER CHAVEZ: Good morning. I'd like to thank you for letting me speak this morning.

The Chowchilla City Council voted in favor of the high-speed rail alignment along Avenue 21 and Road 13. It was a vote favor of the city ability to grow well-paying jobs and a vote embracing a regional approach toward land use.

Let me explain how the other alignment, the one not supported by the city, would impact Chowchilla. The alignment would parallel State Route 152 creating a physical and visible barrier between the highway and the city's industrial area. The alignment would continue east over S.R. 99, and turn North along Road 19, where it passes the city's expanding residential development and elementary

school. And then turns back west against becoming -- continuing north towards 99.

The other alignment, the one preferred by the city, stays away from the urban development as it crosses through farmland along Avenue 21 and Road 13. From there, it continues north through the countryside towards SR 99.

The rationale behind the Council's decision focusing on key perspective -- what should Chowchilla look like in the future? As one member of the Council put it, "We need to envision our community 50 years from now, and then make a sound decision to get there."

The vision includes a family-friendly community which affords affordable housing, parks to play in, pedestrian pathways, quality public schools and safe neighborhoods, vital to the vision of job opportunities for the residents, and the vibrant downtown enjoyed by all the citizens.

It is for those reasons that the Council chose the alignment that follows Avenue 21 and Road 13. The vote is not the first time the Council has supported Avenue 21. The Chowchilla City Council has steadfastly supported the alignment since 2010 when it passed Resolution 91-10, and enjoys similar support for the alignment from the Chowchilla Chamber of Commerce in its Resolution 01-2010, from the Green Hills Owners Association as a resolution

passed on November 18th, 2015, and from the Community of Fairmead.

The reasons for opposing the SR 152, Road 19 Alignment are simple. Jobs and quality of life garnered through smart planning. Chowchilla City limits are bordered on the south by SR 152 the sphere of influence extends further south to embrace the Community of Fairmead. Both the Chowchilla and Fairmead share similar economic challenges. Both are economically disadvantaged communities, starved for well-paying jobs.

In an effort to address these common challenges the city has been entertaining the development of Chowchilla Industrial Center on Road 17 1/2 and SR 152. The plans for 4,000 jobs in retail, a hospital and residential center at Robertson Boulevard and SR 152, and an auto manufacturing facility at SR 99 and SR 152.

Additionally Chowchilla and Chowchilla Regional Water Quality Board are in discussions to connect Fairmead infrastructure with that of Chowchilla. The problem with SR 152 and Road 19 alignment is that it drives a barrier between SR 152 and the city's industrial park, cutting off businesses from the economic corridor and deterring and impacting the growth with well-paying jobs.

It also presents a similar challenge for linking together multiple services for Fairmead. From the planning

prospect the SR 152, Road 19 Alignment cuts too close to the current and future residential growth and the Avenue 21, 13 Alignment stays away from the development by using farmland as a buffer.

Just as important, the SR 152, 19 Alignment pushes growth to the west on prime agricultural land. And Avenue 21 and 13 Alignment would push future growth to the east on non-prime ag land.

In short, the Chowchilla City Council vote is vote with the eye on the future. One that embraces ordered growth and rationale around historic Downtown nurturing the expansion of well-paying jobs stimulated by virtual trade corridors of SR 152 that link the Silicon Valley with the San Joaquin Valley, and SR 99, which weaves through the major cities of the San Joaquin Valley protecting prime ag land, and most importantly growing a family-friendly community that is spared the disruptive roar of 220 mile-per-hour trains 12 times per hour.

Sincerely, Councilman Chavez, thank you.

CHAIRMAN RICHARD: Thank you, Councilmember. We appreciate your coming here today.

Okay. I have no other speaker cards from elected officials or civic officials, so we're going to go to the general public.

First, I think it's Nathan, is it Whipple, sir?

MR. WHIPPLE: Yes. Yeah, the name is Whipple.

CHAIRMAN RICHARD: Okay. Mr. Whipple, please come forward.

And he'll be followed by Robert Allen.

MR. WHIPPLE: Great. My name is Nathan Whipple, good morning.

I am here on behalf of the energy topic for renewable energy sources. I have a small packet that I've prepared for you. I've been to a few of --

CHAIRMAN RICHARD: You can leave that with the Secretary sir, and she'll make sure that we get it.

MR. WHIPPLE: Okay, very good. I'll do that, yeah.

I remember back in 2013, I think it was 2013 or something, you guys put out a bid for a renewable energy source or a foundation. And since then, I've been working on designing a solar array that fits in between highway medians and railway medians.

The advantage of doing this is that it doesn't consume a lot of land. You wouldn't have to purchase more land to facilitate the energy needs of the rail system. And if it’s a privatized system, you would own the rights and the energy that you produce from this system as well. And you can put that back into the trust for the high-speed rail system, pay for jobs, pay for the electricity needs of

the rail system. And it also works as a backbone for other functions. It has advertisement boards. You could use it as a notification system, or traffic monitoring station.

If you set it up with the appropriate computer system you can power certain sections of the rail using direct current locally, so you're not pushing all the power created by the panels into the entire rail system. You can distribute it into the local communities and sell it. And that money can also go into the expansion of the rail system or pay for wages or other things like that.

So not to take up too much of your time, but I do have a small pamphlet with a cost analysis as well as some technical drawings that I've created myself. And if there's any questions, I have my contact information on here as well.

CHAIRMAN RICHARD: Great. So in addition to having it distributed to the Board Members we'll make sure that it gets to our relevant technical staff, so that they can look at this.

MR. WHIPPLE: Very good. Very good, thank you.

CHAIRMAN RICHARD: Maybe if you could just drop that off with the District Secretary's Office over there? Thank you, Mr. Whipple.

MR. WHIPPLE: All right. Thank you.

CHAIRMAN RICHARD: Robert Allen, and he'll be

followed by Ivor Samson.

Good morning, Bob.

MR. ALLEN: Seven long years ago California voters approved the Prop 1A bonds for safe, reliable high-speed trains. Your plans propose using the Caltrain tracks, which have dozens of grade crossings. That is neither safe nor reliable.

California Public Utilities Commission has safety oversight responsibility for rail crossings. Their rail crossings and engineering branch reviews rail crossing impacts while development projects are still in the planning stages. I am concerned that you and Caltrain plan on blended rail before adequate analysis of safety issues and California Public Utilities Commission's approval.

Even 79 miles an hour may be too fast for Caltrain push-mode trains. Fortunately, the Coca Cola truck that a push-mode train hit in 1999 wasn't a gasoline truck or a heavy load of rock, and the engineer could slow his train. Nothing like the Amtrak at Bourbonnais, Illinois that was also on 79-mile-an-hour track, hitting a heavy truck at a grade crossing, derailing two locomotives and 11 of 13 cars.

Until Caltrain is grade-separated defer the blended rail operation. Defer a one-seat ride for San Francisco. End the high-speed rail to the Bay Area at San

Jose Diridon, where you can have a convenient seamless transfer to Caltrain, to Capitol Corridor Amtrak, to VTA Light Rail, to the ACE, to the Silicon Valley BART. Thank you.

CHAIRMAN RICHARD: Thank you, Mr. Allen

Mr. Samson, followed by Marvin Dean.

MR. SAMSON: Thank you. Good morning, Mr. Chairman, Members of the Board. I am with Dentons and we represent SunnyGem Almonds.

I've appeared before you twice before in November and December. As a reminder, SunnyGem is an integrated almond-processing facility, 20,000 plus acres of almond orchards, a hulling plant in Buttonwillow, and a 380,000 square foot processing plant in Wasco. It employs, in total, well over 200 people.

And the present right-of-way, as we understand it, will eliminate the functionality of that plant. Effectively, a total taking of the plant in the order of several hundred millions of dollars in terms of plant costs and businesses losses. And even more importantly, a loss of 200 odd jobs in a fairly impoverished community.

I expressed these concerns to you at your meeting in Fresno on the 17th of November. I followed up with a letter to Mr. Richard on the 18th of November.

On the 7th of December I sent Mr. Richard, and I

presume it was distributed to you, a very detailed letter outlining our issues both economic, environmental and operationally as well as outlining what we felt was a lack of substantive response from local-level HSRA officials. And I requested a meeting with senior-level management.

I followed that up by attending the meeting and made that same request on December 8th here in this auditorium. Mr. Richard kindly offered to get together to discuss these matters. I followed that up with an email on December 9th.

On December 16th I sent a letter to Mr. Richard and the Board with a copy of a resolution that was passed by the City of Wasco, on December 8th, requesting that the right-of-way be moved away from the SunnyGem plant.

It essentially parallels the BNSF right-of-way on the western side. The City of Wasco asked that it be moved over to the eastern side of the right-of-way.

We have the consent of affected land owners on the eastern side, as well as the support of the City of Wasco, notwithstanding the impact it will have on smaller businesses on the east side of town.

I followed that up with a letter to Mr. Richard on January 4th, again reiterating our desire to get together with senior management. And I am here today.

I know it's been the holiday season. I know

everybody is busy. I respect that. But we'd like to be listened to. We would like the courtesy of a response. And with all respect to Mr. Richard, I look forward to having something set up soon. Thank you.

CHAIRMAN RICHARD: Thank you. Let me just say to my colleagues that when I walked in this morning I saw Mr. Samson, and I apologized to him, because it had been my intent to sit down with him during what I thought was going to be the quiet time of the holidays. And somehow I turned around and its 2016. So that did not happen. So he is correct. And I told him this morning that before I leave today we'll be setting up a time for a discussion.

What I have done, in the interim, is discharge part of that responsibility by having conversations with Ms. Gomez and getting some information as further background.

But Mr. Samson's correct. I sat here in this very seat a month ago and told him I was going to sit down with him and hadn't done it yet. So let me acknowledge that.

MR. SAMSON: So I'm not leaving until we get something set up.

CHAIRMAN RICHARD: That's correct. You're not. So anyway --

MR. SAMSON: All right.

CHAIRMAN RICHARD: Anyway I apologize to Mr. Samson and to my colleagues, because --

MR. SAMSON: And do you have the correspondence or do you need me to give another copy of it just --

CHAIRMAN RICHARD: I've got it. I do have it.

MR. SAMSON: All right, thank you.

CHAIRMAN RICHARD: Thank you, Mr. Samson.

Mr. Dean, I don't think I've screwed anything up with you recently, but if I have --

MR. DEAN: No, actually I came --

CHAIRMAN RICHARD: -- please feel free to tell me.

MR. DEAN: Well, let me first of all say I'm here representing the Kern Minority Contractors Association out of Bakersfield. I haven't been here in a while, but this is the first Board Meeting of 2016, so I wanted to show my face again.

And I wanted to say that 2016 looks to be a very busy year. And I want to thank this Board and the staff for all the hard work that you guys have done go get us to this point -- we're in a very good position and I'm going to speak to that in a minute -- against all the opposition and the challenges. And I know there are still a lot of challenges ahead.

And I would ask this Board and your staff to

continue to work with these folks in the Valley that have concerns and may have issues. And I know you guys will do that, because you've already shown that in the past. And I think through that we'll work through this process.

I want to also come -- and I wasn't asked to do so -- I wanted to come and speak in support of this proposed item number three to award CP-4 prime contract for CP-4 to California Builders. They've done an extensive job. Outreach to the trade associations in the Central Valley and the diverse community. They've listened and I believe they're going to do a heck of a job on their teams in having diversity. I know these folks. And actually quietly, I didn't take any public positions, but they were one of two firms I was hoping to get this.

One of the things that I am also pleased about is that now we have three large world-class firms in the Central Valley for this first phase, which is great because one of the things that those of us on the Council were concerned about, that this project wouldn't go to one large firm.

Now you've got CP-1, first-class firm; CP-2 and 3, and if you take this position today you'll have another world class CP-4. And I think that's going to be good for competitive in terms of keeping the price down. And they'll work against each other, so as the other work opens

up we can see which firms are going to do a great job. So I think this is going to, all the way, be a good thing for all of us.

And so, for that reason, I think we all have a lot to feel good about, because in the face of all the opposition this thing is still moving ahead. And I would just ask you all to continue to move full speed ahead, but work with the opposition, but don't look back.

And the thing that we're doing on the ground -- in the Central Valley there is a group. I'm kind of behind the scenes working with that group, and we're setting up a group that is going to be called the San Joaquin Valley High-Speed Rail Trade Association. It's going to be an advocacy group.

And it going to basically just to promote the good things about high-speed rail, because I don't think enough is being said. And we need to show that this thing is going to be a benefit for every firm and every agency and every person in the Central Valley when this thing jumps off. And we need to champion that.

So again I just want to commend you all, because I know the opposition you've got and you're still not out of the woods, but you're doing a good job and we all feel good about where we're at, at this stage of time. So thank you and just keep moving full ahead. And I'm going to do

everything I can behind the scene to help. Thank you.

CHAIRMAN RICHARD: Thank you, Mr. Dean.

Our last speaker this morning is Frank Oliveira. Good morning, Mr. Oliveira.

MR. OLIVEIRA: Good morning. Dear Governor Brown, Board Members and Chief Executive Officer Morales, last summer the California High-Speed Rail Authority formally requested the international infrastructure construction and operation communities to review your project plans and provide you advice on how to build and operate your proposed initial operating section of the California High-Speed Train Project.

The international community studied your plans and responded. More than 30 companies expressed concern about what you're doing. Most offered suggestions to improve the project so basic that we were embarrassed for you to read them. None suggested that you're creating a model or even workable system.

At the Board meetings on November 17th and December 8th the public formally asked you to explain to the public the responses that you received, so that the public could understand how this project has become this dysfunctional while the Authority continues to report the progress forward.

On November 17th, your Chairman dismissed the

public as not understanding what the Authority had done. Due to the Chairman's comments we reviewed the matter to ensure what the public requested was appropriate. That done we respectfully request for the third time in three months that the Authority Board publicly explain why, after studying the Authority's plans, the following international mega infrastructure builders and operators expressed detailed concerns about your ability to finance, or construct, or secure investors, or operate a high-speed train system.

Japan-California High-Speed Rail Consortium, Parson's Transportation Group, China Railway International, DB International, FCC, Thales, INABENSA, Acciona, Sacry, Plenary Group, John Laing Investments, Bechtel Infrastructure/Arup North America/SYSTRA Consulting, Fluor Enterprise, Balfour Beatty, Cintra Infraestructuras/ Ferrovial Agroman, US Corp, Meridiam Infrastructure North America, AECOM, Insula, (phonetic) VINCI, Globalvia, Acumen, ACS, OHL, Ashurst, Kiewert, Indra USA.

Please publicly explain why 13 of these same international mega infrastructure builders and operators also told you your plan would require guaranteed revenues, secured payments, or subsidies to be given to private investors to be successful when this is clearly prohibited

by Proposition 1A.

If the international community and the federal government are not going to give you the more than $50 billion you need to establish some sort of functional service that does something, why are you moving forward and destroying our private property, our communities, and our county?

I submit this request to be entered into the January 2016th Board Meeting record. Thank you.

CHAIRMAN RICHARD: Thank you, Mr. Oliveira.

Okay. That concludes the public comment section of the agenda. We'll move now to the regular order beginning with the consideration of the Board minutes from the December 8th Board meeting.

VICE CHAIR RICHARDS: So moved.

BOARD MEMBER ROSSI: Second.

CHAIRMAN RICHARD: Okay. I'm sorry, I stepped away for a second. I heard it was moved by Vice Chair Richards, was there a -- seconded by Mr. Rossi.

Could the Secretary please call the roll?

MS. NEIBEL: Vice Chair Richards?

VICE CHAIR RICHARDS: Yes.

MS. NEIBEL: Vice Chair Selby?

VICE CHAIR SELBY: Yes.

MS. NEIBEL: Director Rossi?

BOARD MEMBER ROSSI: Yes.

MS. NEIBEL: Director Correa?

BOARD MEMBER CORREA: Abstain.

MS. NEIBEL: Director Curtin?

BOARD MEMBER CURTIN: Yes.

MS. NEIBEL: Chair Richard?

CHAIRMAN RICHARD: Yes, thank you.

Okay. The next item is an item that -- first of all I want to welcome to our Board Meeting today a member of the California Energy Commission, Mr. David Hochschild.

And I understand, Mr. Morales, that he along with Meg Cederoth from the staff, are going to be giving a presentation on Renewable Energy.

Many people know that -- I know that it'll shock you to know that High-Speed Rail Authority Board position is not a full time position, so I do have some consulting work that I do in the energy area. And so, even without having any specific matter that rises to the level of a conflict I've just generally taken it upon myself to excuse myself from any conversation about energy issues whatsoever.

So Commissioner, I hope you won't take offense. I know you won't, but I'm going to turn the gavel over to Tom Richards to preside over this portion of it. And I'm just going to step out for this item, for that reason. But

welcome and thank you.

And Ivor, this is a good time for you and me to figure out when we're getting together.

VICE CHAIR RICHARDS: Thank you, Mr. Chairman.

Please?

MS. CEDEROTH: Good morning.

VICE CHAIR RICHARDS: Good morning.

MS. CEDEROTH: We have a presentation.

Thank you so much for the opportunity this morning to speak to the Board. I'm particularly honored that Commissioner Hochschild will be joining us. He has quite an informative and engaging presentation on Renewable Energy Planning in California.

First, or course, I wanted to provide you all with a little bit of context of the work the staff has been doing to implement the Board policy over the past few years. It'll just kind of help to frame -- help fit within the larger frame that Commissioner Hochschild will be providing.

So as you know, the Board adopted a policy in September of 2008 to run the train on 100 percent renewable energy. This was a very tangible demonstration of the commitment of the Board to implement sustainable infrastructure for California, but it was also quite a rational and feasible policy goal.

The Board reviewed an extensive report that analyzed the rich abundance of renewable energy resources in California, and weighed that against the relatively small load of the train system, and confirms this policy.

This is a very unique position among high-speed rail systems globally, and certainly demonstrates the leadership which people have come to expect from California. This also helps us to implement state policy around greenhouse gas emissions reductions as well as our renewable energy goals.

Since that time we've made some progress on practical implementation of this policy goal. It's a very clear policy statement. It allows us to embed the planning and work toward that policy early in the development of the program.

And we were fortunate enough to receive some funding from the USEPA that allowed us to work with analysts from the National Renewable Energy Lab, who helped to analyze our functional areas and identify where we could achieve some energy efficiency savings. It also helped us to clarify a practical approach to 100 percent renewable energy.

I know many of you have heard me say that we'll run on 100 percent renewable energy, but we will not plug the train into a solar panel. We'll be interconnected with

the Grid relying on the strength and resilience of the Transmission Grid to run our train system.

But at the same time, we will procure or produce onsite, enough renewable energy to offset that amount. This is called a net-zero approach. It's a very standard, common approach to achieving 100 percent renewable energy operations goals.

Since then we have been working with renewable energy industry partners, as well as our state partners at the Energy Commission and the CPUC. We issued what we called a Call to Industry, which was essentially a request for information.

The Department of General Services as well as the Energy Commission helped us develop that RFI. The RFI confirms that there were a range of renewable energy developers within the state, who had both the capacity and the interest, to supply both our short and long-term renewable energy needs.

We've also relied upon reported prices to the CPUC, as well as our own review of national reported Power Purchase Agreements, to confirm the pricing assumptions that we've used in the Business Plan. We've also worked with other renewable energy partners, the biogas industry, solar industry, to understand the state of practice around renewable energy in California.

We're moving on to finalizing a policy this spring. We wanted to confirm a few policy elements related to the timing of the goal, confirming that net-zero over the course of a year was an approach the Board wanted to take. It seems the most feasible, practical approach. It's common among zero-net energy buildings, zero-net systems.

And right now I'm sure you're aware, California's poised at a really exciting time when it comes to renewable energy. And I'm quite pleased today to introduce Commissioner Hochschild, who will be talking about this in detail.

Commissioner Hochschild was appointed to the California Energy Commission by Governor Jerry Brown in February of 2013. He fills the environmental position on the Board, which means renewable energy is under his portfolio. He has a long history in the industry and is widely and deeply respected for his work to advance clean energy. He's received a number of awards including from the Sierra Club, as well as well as the American Lung Association.

And without further adieu, I'd like to hand this over to Commissioner Hochschild.

COMMISSIONER HOCHSCHILD: Thank you, good morning

VICE CHAIR RICHARDS: Good morning and welcome,

Commissioner.

COMMISSIONER HOCHSCHILD: And good to be with you.

First of all I just want to, on a personal note, thank all of you on the Board and your terrific CEO Jeff Morales and his talented team, for giving your time to make this enterprises a success. I really believe high-speed rail has got to happen. It's good for the state. It's good for the nation.

And it's in my view, absolutely going to be in the category of those bold infrastructure projects like the Golden Gate Bridge or BART, that you can't now envision living without. And I know you're in the early stages of climbing this hill and it feels hard, but I just want to personally encourage you to keep going, because this is good for our future.

So I'm going to just give a bit of an overview of what's happening in the energy space. And I want to start actually with coal, because this is probably the single biggest change that’s happened in our country in the last five years, is we're seeing the end of the coal era.

So if you go back just to 2011 the majority of the electricity in the United States was supplied by coal. And the majority of that coal came from just four companies: Peabody, Arch, Alpha and Cloud Peak Energy.

And what's happened since then is their market cap, their combined value, has declined by 99 percent. Okay?

So this is just -- the significance of this moment in history cannot be overstated. I mean, coal powered our economy. It was the reason the British Empire was able to grow as it did. That Germany was able fight and wage two World Wars. That, you know, it was one of the main reasons Japan invaded Manchuria going up to World War II, obviously still powers China and India's economy.

And we're ending the coal era starting now. And the question is what comes next?

California's role, by the way, in this trend has been tremendous. Not just from -- obviously the low price of natural gas has contributed heavily, but the big change has been the drop in renewables. I come out of Silicon Valley and the solar manufacturing sector. When I got into the solar field in 2000, solar was 50 cents a kilowatt hour. And we're now down -- nationally we see prices three-and-a-half cents -- and in California about five cents a kilowatt hour, so incredible progress.

In the United States this last year, for the first time, renewable energy was the majority of new electric generation capacity added in this country. And that's a trend, I think, that's only going to continue.

I also think it's important to note what's going

on with federal energy subsidies. There's basically three fundamental differences between how federal subsidies have supported renewables versus fossil fuels.

So subsidies for fossil fuels are much more numerous. They have been around much longer. And importantly, they typically don't expire. So you have the oil depletion allowance, which started in 1926 and continues in perpetuity. And then the solar wind tax credits, which started only recently and expire in a few years.

So this dynamic has really actually slowed our progress. In some ways it's made what we're doing in California all that much more important, because we're providing a lot of the momentum that we would like to see in terms of federal support.

So in California, as you know, the first major law that the Governor signed when he came into office in 2011 was the 33 Percent RPS. And now -- and we're fully contracted to get to 33 percent by 2020, by the way.

And then this latest bill, SB 350, taking us to 50 percent renewables by 2030 -- an important milestone that really positions renewals as mainstream -- and fossil fuels at that point becomes the alternative energy. And that's precisely where we're headed.

And this, by the way, is keeping with the

philosophy that we've had as a state towards renewables, because we know what works now. And it's stable long-term policies and you get away from the stop-start incentive cycle. And that sustained orderly development has been the guiding philosophy that's yielded so much success so far.

People talk a lot about well if we do this, you know, it's not going to be good for our economy and so on. And yet this, just to recap, has been the story as our GDP has gone up and our population has gone up, our emissions have gone down. I think we're proving that this future is possible. And that trend, in my view, is going to continue.

So, compared to the rest of the country California has installed more renewable energy than any other state in the United States. Texas is second. They've done a great job on wind to their credit.

And by the way, I do think it's worth looking at some of the mythology that was propagated when we started down this path, which is, "You know, it's going to crash your economy." Okay. Our economy is growing faster than the national average. "It's going to skyrocket unemployment." Well, unemployment has been cut in half in the last five years in California coincident with the greatest increase of renewables. And, "It's going to be terrible for rate payers."

And I do think on the rate-payer piece that was a valid point earlier on. Today, as I mentioned, the price of new solar projects is cheaper than new coal and in many cases new gas. So the price equation has radically changed, which is good for all of us.

To recap, I just want to -- one word on energy efficiency -- if you go back 40 years some things were not so different. The Governor was a guy by the name of Jerry Brown who had taken over from a moderate Republican movie star Governor. At that time, Reagan, this time Schwarzenegger.

And the Energy Commission was born 40 years ago, out of this energy crisis. Electric load was growing at 8 percent a year. The Legislature commissioned the Rand Corporation to study this, come back with a recommendation of what to do. Their answer was, "Build 40 nuclear plants." So we have an 800-mile coastline; that would have been one nuclear plant every 20 miles. The Legislature said, "No. We're going to get serious about efficiency. We're going to get serious about renewables."

We have one nuclear plant operating in California today. And on efficiency you can see the commercial, industrial, and residential savings. We're now using half the energy per capita, of the rest of the country. In large measure, because of the energy efficiency codes on

new construction and appliances.

Just to tell one appliance story the refrigerator -- the biggest energy hog in your house -- when we regulated that big resistance from the refrigerator industry. And energy use plummeted after the codes, while the costs of a refrigerator went down, and the size of the refrigerator went up. It's just another example, I think, of smart policies succeeding.

So on cost reduction the DOE just released this study showing cost reduction of major sources since 2008. And you can see everything going the right direction: Wind, Distributive PV, Utility-Scale PV, Battery Costs and so on.

What's happened is I think Wind and Solar PV have really separated from the pack. I think of renewable energy technologies as like raising a family, you want every kid to grow up and succeed. Really Wind and Solar have now graduated from college. And they're going to be the predominant renewable energy source just because of cost reductions.

On renewable energy growth generally since 2008 we're at 12 percent renewables in California. And we're now at 25 percent. So incredible success we're seeing there. And I want to take you guys on a little tour here of some of the projects that are providing this power.

So this is a project I dedicated with the

Secretary of Interior about eight months ago. It's the largest Thin Film Solar PV Project in the country called Desert Sunlight -- 550 megawatts -- about half the peak load of San Francisco and just as an example of what's going on. So this is a fixed tilt cadmium telluride thin-film array. And the innovation happening, just over the course of the construction of a single project, is amazing.

So this whole site was graded and that's actually 15 percent of the project costs. During the course of the project they figured out actually how to avoid grading on their future projects, so that cost is gone.

If you go and look at this on the southern end of the field, all the modules on the array have a frame, an aluminum frame. Halfway through the project they figured how to avoid installing the frame. That cost has gone.

And then the efficiency in solar -- there's an additional cost to be on a tracker, a horizontal single-axis tracker. You have to get the efficiency high enough to justify that. And halfway through the project they justified it. So going forward all these projects are on trackers.

Just as an example of the innovation, that was just over one project.

We also have the world's largest Silicon PV Project, which is a SunPower Project just towards the east

of L.A. There's basically only two American solar panel manufacturers left: First Solar, which was the last project, and then SunPower, which is this project.

The largest Solar PV Project in the world, which happened just this summer in China now, Western China, 1.2 gigs. So just to give you a sense of the -- the whole global PV market in 2004 was 1 gigawatt -- so this one single project is bigger than the entire global market a decade ago.

Some of you may have seen this: the Ivanpah Project. You've got three 550-foot towers with a boiler on top, surrounded by 173,000 heliostat mirrors that focus light on those towers. And this is the world's largest solar thermal tower project, a BrightSource Project.

This is the world's largest solar thermal trough plant, the SEGS Project. This interestingly is not new. This is 30 years old and still performing very well. I think a real testimony to the durability of renewables.

And we also have the world's largest geothermal power plant in California up in Napa and Lake County, the Geysers. Unfortunately this facility was damaged somewhat by the recent fires, but they're making those repairs now.

And California's also home to the world's largest wind project, the Alta Wind Energy Center, in Kern County. When you think Kern County -- you know, as a native

Californian I always think of oil first. Well this is actually the second largest taxpayer now in Kern County.

And we're leading the nation in biomass energy as well. This is actually how they get biomass material into the plant. They put it in the truck and they tilt the truck up like that to feed the power plant.

One of the other things we're seeing as a positive trend with wind is that -- because every power generation source, including renewablels, has an environmental impact. But they're now figuring out ways to reduce that for wind. So if you go back and look at the old turbines they had this lattice structure, which was a perching opportunity for birds.

As an example of what's happening this is a project about an hour south of here called Vasco. They had 432 of these small turbines, very high RPM, about 45 RPM. And they repowered the site, removed all those old turbines, replaced them with just 34 new turbines with the solid steel column, only 12 RPM. And it cut avian mortality, the bird kill, by 70 percent and tripled the energy production.

Solar on new construction -- this is one of the major goals for the Governor as we move towards Zero Net Energy -- a new code. Now, 27 percent of the homes in Southern California are now being built as solar as a

standard feature.

Heavy-weight home builders like KB Homes, Lennar and Meritage are moving that way as well.

And the City of Lancaster has actually mandated solar on all new construction.

One of the benefits there too, as you get green homes the default risk, it turns out, goes down. The customers have more money in their pockets from utility bill savings to stay in their homes.

And we're now having -- we actually have more jobs in the solar industry in California, than all the utilities combined. About a million solar systems nationwide, California is about half of that today.

I just mentioned this cost reduction, because to me it's very similar to Roger Bannister breaking the four-minute mile in 1954 -- the goal nobody thought could be met. And then as soon as he did it, six weeks later, like the next guy did it. And that's kind of what's happening with pricing now. Solar broke four cents a kilowatt hour now in June of this year.

Looking ahead, if you look at this, this is the projection of a different renewable energy source as we expect to meet the State's RPS. And you can see Wind and Solar PV are the biggest. The biggest change there is Solar PV and that's really just because of cost reduction.

The cost goes down, really three things driving that: innovation, automation and scale. And all three of those are happening because of our policies.

The largest manufacturing plant in California, as worth mentioning is an electric car factory now, which employs 12,000 people. This is the largest grant we have given as a Commission, was to Tesla. I worked in Silicon Valley right across the street from these guys when it was the NUMMI Plant. It shut down in 2010 and everyone thought that was the end of car manufacturing in California.

Tesla came in and bought the facility. And NUMMI had had 5,000 employees. Tesla has got 12,000 now. So we have about 150,000 electric vehicles today, in the State. And that's part of this broader trend towards what I call the electrification of almost everything that we're seeing.

And just to give you a sense of how quickly this is happening, it took GM a century to get to be a $50 billion company. And Tesla got to two-thirds of that in a dozen years right, so.

We're also seeing an electrification trend with buses, so this is a company called Proterra, another one of our grantees. It makes a bus that goes 100-mile range. It can recharge in 20 minutes. They're in 13 cities now. They're being manufactured in the City of Industry, a very promising trend.

And this news just came out this month that Chevrolet is actually going to beat Tesla, it looks like, to be the first car company to come out with an electric vehicle that goes 200 miles and is in the $30,000 price range. That's coming out in October of this year.

And we're also seeing a trend, speaking of electrification, with all-electric homes that they're building without a gas line. This is a company called CityVentures in L.A. What they're finding is that it's about a $4,500 avoided cost, which is the cost of not having to bring gas service to the house and pipe inside your home.

And then the electrification of motorcycles on the right, it's called Zero Motorcycles, another one we funded. On the left, that's actually the electric bike that I bought. I am a really slow biker and not who you want racing the Tour de France. I put a little -- I have a ten-year-old daughter -- I've got one of those attachments so you can kind of -- like a half bike that clips on. And I'm biking up this hill and I pass this guy. He's dressed like he's racing the Tour de France and he didn't know I had an electric bike. I passed him with a kid on the back. It felt great. (Laughter.)

So a big trend now also towards companies committing to do 100 percent renewable. Google, Facebook

and Apple have all made that commitment. And others are going along as well. Apple's actually going way upstream and doing large-scale solar and wind projects to power the Foxconn Factory in China where iPhones are made, so some very encouraging trends there.

This is the solar roof on the White House that President Obama just put. And as you know, Governor Brown just installed solar on the Governor's Mansion.

With the military, just worth noting some incredible progress, so we work very closely with the military. There's 30 military bases in California. Their goal, the Navy in particular, is 50 percent renewables by 2020. Our goal is 50 percent by 2030. The Marines have a goal of zero fossil fuels on their bases by 2025. They'll still use fuels for their missions, so incredible progress. And I really tip my hat to them.

And, of course, your good work on high-speed rail.

I just wanted to close with a couple success stories, because I know the challenges you're facing are steep. But to keep in mind some successes that have inspired me. So you look back at acid rain, a big problem in the '70s in Ohio and in the Midwest. To deal with local air pollution problems they put higher smoke stacks, which got the pollution into the jet stream and killed fish life

in all these lakes in the Adirondacks in the northeast. And George Bush Senior, to his great credit, did the Acid Rain Bill and that problem has been largely corrected and those lakes are in the Adirondacks are coming back to life.

Same story with the Ozone Hole, in 1987 the Montreal Protocol, the world came together and banned chlorofluorocarbons and the Ozone Hole is on a path to completely restore by 2050.

But I think to close the best analogy of with where we are with fossil fuels, I think, is what happened with smoking in the Unites States. We used to give cigarettes for free to soldiers in their daily rations in World War II. President Kennedy smoked, Marilyn Monroe smoked, Johnny Carson smoked.

And then the science came out that cigarettes caused cancer and second-hand smoke causes cancer. And the response of the tobacco industry was to put $100 million in junk science to distort that basic truth. And that had the effect of delaying, but not ultimately stopping, the science from getting accepted. And when it did, we went from half of the country smoking, all of this cascade of good policies banning cigarette advertising on TV, increasing the cigarette tax, health warnings, banning smoking on airplanes, and bars and restaurants.

And today, smoking is down to 15 percent. And

it's really one of the biggest health success stories in our country's history. And I want to just close with that, because I think that's actually the precise path we're going to follow with renewables if possible.

And I will close there, happy to take questions.

VICE CHAIR RICHARDS: Thank you, Commissioner Hochschild.

Do any of my colleagues have any questions or comments for the Commissioner?

BOARD MEMBER CURTIN: I do (indiscernible).

VICE CHAIR RICHARDS: Yes, sir?

BOARD MEMBER CURTIN: Yeah. I'm interested in the intermittency issues that are associated with it, which are obviously complex, in the idea that we're sort of built out on solar? And I know there's a policy move to sort of either expand the Grid or somehow attract renewable sources that either fit the balance, or are more baseline sources.

I want to make sure that we fit into that we fit into that when we develop our program, so that we're not just adding to the overdevelopment of solar in California, because as you probably have -- I mean, you're certainly aware that we're starting to curtail some of that solar, because we have nowhere to send it and nowhere to use it at the time its good.

So I just want to make sure that in whatever

process we're doing that we do contribute to the sort of expansion of the renewable development, beyond California's borders regionally.

COMMISSIONER HOCHSCHILD: Yeah, thank you for the question. It's a great point. I would just say there's nothing about the challenge of intermittent renewable generation that's outside the bounds of what I'd call a solvable problem. It's just math and there's not a --

BOARD MEMBER CURTIN: Outside the bounds of what?

COMMISSIONER HOCHSCHILD: Of being a solvable problem.

BOARD MEMBER CURTIN: Yeah. Okay, right.

COMMISSIONER HOCHSCHILD: Okay, so and there's -- it's not a silver bullet thing -- it's really a silver buckshot. Part of the solution is actually just having wider balancing areas, so we're drawing on renewable generation from other states at a time when our renewables does not producing. Part of it is energy diversity within the renewable space, geothermal, biomass and so on.

BOARD MEMBER CURTIN: Right.

COMMISSIONER HOCHSCHILD: Part of it is energy storage. We have a 1.3 Gigawatt Storage Mandate for the State. And that's helping drive costs for storage down.

And then part of its manipulating demand. When you charge your electric car -- that's what Google is

working on, right?

BOARD MEMBER CURTIN: Right.

COMMISSIONER HOCHSCHILD: They have a fleet of 30,000 people here and 1,500 electric vehicles. And they're piloting -- you know, you can time the charging of the vehicles to match with renewable generation. I mean, the model to date has been that electric generation follows electric demand. And for some subset of that load it's going to switch. And actually, demand will follow renewable generation.

You know, all of us have a refrigerator. And you have a defrost cycle that goes once a day and you don't care when that is. These things can be timed and you can pre-cool buildings. And so all of those things are things we're going to be looking at closely.

BOARD MEMBER CURTIN: So also biomass, I'm a little concerned about that. And if we have an export market for our solar it makes a lot more sense we can continue to develop solar. That's an important policy development that I think we'll be looking at this year. But I'm hearing that biomass is cutting back.

And that's something that is particular to California ag industry. And if we revisit our forestry practices to deal with global warming, we should have some serious biomass potential in the Sierras, which this would

be sort of a baseload for the train. And we might be able to encourage that.

COMMISSIONER HOCHSCHILD: You're precisely right. And, you know, one of the big benefits of biomass is the reduction of fuel load for forest fires. And so the problem has been with the RPS Procurement Model today, with the way it's designed. We've become somewhat a victim of our success with the cost reduction of wind and solar. It's very tough to compete with that structure.

BOARD MEMBER CURTIN: Exactly, so I'm thinking that the train since it’s a baseline power source, we might be able to encourage some biomass --

COMMISSIONER HOCHSCHILD: It's possible, yeah.

BOARD MEMBER CURTIN: -- facilities, because I know they're in trouble on the pricing side.

COMMISSIONER HOCHSCHILD: Yeah.

VICE CHAIR RICHARDS: Director Correa?

BOARD MEMBER CORREA: Commissioner, good morning, great presentation. I wanted to ask you, a lot of the solar panels being put at residential, is there any effort on the commercial side? Industrial buildings and what have you?

COMMISSIONER HOCHSCHILD: Yeah. So there's great success in all three spaces: residential, commercial and utility scale. The market's about one third, one third,

one third. We have now half a million roof-top solar energy systems in the State. And the in terms of numbers the vast majority are residential, but in terms of megawatts its roughly split a third, a third, a third.

BOARD MEMBER CORREA: Second question, I keep reading about some storage mechanisms that are being developed, I believe by Tesla, for home usage?

COMMISSIONER HOCHSCHILD: Yeah, that's called the PowerWall. And this is a residential home lithium ion system.

I think it's important to recognize there are other storage mechanisms for utility scale, so that's flow batteries, which is basically a vat of electrolyte that holds a charge. It has about a 80-percent round trip efficiency. And you can charge it up with renewables and dispatch it as you see fit. One advantage of that, although that's slightly more expensive than lithium ion batteries, is that it doesn't degrade over time whereas lithium ion degrades gradually over time.

But we have a portfolio approach of supporting these different technologies. And we're seeing cost reductions really across the Board with both flow batteries and lithium ion.

BOARD MEMBER CORREA: Thank you.

BOARD MEMBER CURTIN: So one more question.

COMMISSIONER HOCHSCHILD: Yes, sir?

BOARD MEMBER CURTIN: Is there any effort to try to figure out how to locate manufacturing, particularly in California, but certainly in the U.S.? Because I know it's primarily moved to China and there's some reliability issues on some of those panels. But if we're going to be the driving force on PV it'd be nice if we could get some manufacturing here.

COMMISSIONER HOCHSCHILD: Well, I think Board Member Rossi probably knows more about that than I do. But I would just say some of this is you're competing with other states that are willing to spend enormous amounts of money, as Nevada did, for the Tesla Factory.

I don't know if you wanted to comment on that?

BOARD MEMBER ROSSI: Yeah, I think, Danny, that with Tesla clearly Nevada was willing to write a very large check.

(Colloquy regarding microphone.)

BOARD MEMBER ROSSI: As I say in the case of Tesla, the State of Nevada was willing to write a very large check to acquire that operation. The way we look at that exercise is that we don't wish do anything that reduces the General Fund and therefore benefits to individual Californians. Now, in the case of the process that they used in Nevada, they wrote a check that does in

fact reduce the General Fund significantly.

VICE CHAIR RICHARDS: Any other questions or comments for the Commissioner?

VICE CHAIR SELBY: (Indiscernible)

VICE CHAIR RICHARDS: Yes?

VICE CHAIR SELBY: I don't know if this is for you, or for Ms. Cederoth, but I would like to understand a little bit better for high-speed rail the concept of zero net or net zero and how that works and why we're not just going straight to solar.

COMMISSIONER HOCHSCHILD: So I can just give a quick thumbnail on this.

So the concept of zero-net energy is basically that over the course of the year your facility produces as much onsite clean energy as it consumes. So annually it nets out to zero. The code for all homes by 2020 will mandate that, for all public buildings by 2025, and for all commercial buildings by 2030. So that's a direction the State is going.

I don't know if there were more specific elements you wanted to mention, yeah?

MS. CEDEROTH: So as Commissioner Hochschild pointed out, our stations will be zero-net energy. We'll reduce the loads within the buildings, and then put enough photovoltaics there in the parking lot, so that they alone

are zero-net energy.

But then for the system, in order for us to run 12 trains per hour, both directions at 220 miles an hour, we do need the capacity that the Transmission Grid provides. And I know actually your fellow Board Members have framed the question really well. There's an issue of when you dispatch types of power.

And so we recognize that it was just more feasible to rely on the Grid and our utility players, and then to work to produce or procure the renewable energy elsewhere to feed into the Grid, so that's mostly how it works.

VICE CHAIR RICHARDS: Any other questions?

Good, thank you again, Commissioner. Please come back and --

CHIEF EXECUTIVE OFFICER MORALES: Tom?

VICE CHAIR RICHARDS: Yes?

CHIEF EXECUTIVE OFFICER MORALES: Thank you. Just in closing I want to thank the Commissioner for his presentation, but also for the great work that we've been doing with the Energy Commission.

The Board's goal established back in 2008 -- and we've worked closely with the Energy Commission now, and especially with Commissioner Hochschild, to make sure that we're implementing that in a way that actually makes sense,

that supports and is supported by other state policies -- and very importantly is attainable.

And it's a very important partnership. And we're very pleased with that and thank you for that.

COMMISSIONER HOCHSCHILD: Yeah, just to that point I looked -- actually so we have an MOU with a number of other state agencies, but I'm actually not sure we ever formally signed it with the High-Speed Rail Authority, so I brought a copy and --

CHIEF EXECUTIVE OFFICER MORALES: Very good.

COMMISSIONER HOCHSCHILD: Better late than never, thank you.

VICE CHAIR RICHARDS: And thank you for the ding. (Laughter.)

CHIEF EXECUTIVE OFFICER MORALES: And let me just for -- somewhat to Ms. Selby's question, I think, so we're doing a number of things. And part of the point of this presentation was to both update the Board, but also our plan is to bring an updated policy back to the Board for consideration in the few next months, that looks at our overall sustainability practices. And so I wanted you to have this background, as part of that.

A few other things that we're doing to tie into this, we've committed and our specifications call for all of our stations and facilities to be LEED platinum-

certified, zero-net energy, as Meg said.

And also, in the system the trains will have regenerative braking, which means that as they brake they generate power, which can be put back into the system. That's something the manufacturers have really advanced. And this is another example of where we're working with Commission of how to make sure that that regenerated energy can be in fact be put back in the system and utilized efficiently.

So we're working on a number of things that I think are all very much building on the existing Board policy, but we do want to update that and reflect the other things that we've done.

One last point, because I know it's been a question raised before, the price. You know, there are two questions of the attainability of this goal for us. One is the availability of the resource and the second is the price of it.

We've worked with the industry and with the Commission, and I think as has been described, the capacity clearly is there and will be there as we need it.

The other issue is the price. And we have assumed in our modeling or operating costs the price of 9.4 cents a kilowatt hour. And what we've seen now, coming out of the Commission, is that the price in fact has dropped

from 9.2 down to 7.4, I believe it is.

So we've been very conservative in our estimation of the cost, but I did want to assure Board Members that in committing to renewables we have not skewed the economics of making the system work well, either.

VICE CHAIR RICHARDS: Thank you, Jeff.

Director Correa?

BOARD MEMBER CORREA: Just wanted to ask through the Board in general that I -- sustainability concept, I would presume, also applies to the materials applies to the materials used in construction of the high-speed rail -- that question.

CHIEF EXECUTIVE OFFICER MORALES: Yes, it does.

BOARD MEMBER CORREA: Thank you.

CHIEF EXECUTIVE OFFICER MORALES: We have requirements in our contracts, for instance, for all of the concrete and steel to be 100 percent recycled. We have other recycling goals, 75 percent of all other materials are supposed to be recycled. We're actually exceeding that in our contracts to date.

And as part of this policy that we'll come back to the Board with we would look at other aspects in addition to the renewable energy that help contribute to the overall sustainability efforts and what might be wrapped into that.

BOARD MEMBER CORREA: Thank you, sir.

VICE CHAIR RICHARDS: All right, thank you again, Commissioner. Please come see us again, and other than making sure we sign, we'll be here to help any way that we can.

Meg, thank you. Could somebody from the staff get our Chair, please?

All right, while the Chair is coming back we'll move to the next agenda item, which is considering the award of design-build services for Construction Package 4.

Scott?

MR. JARVIS: Good morning, Board Members.

VICE CHAIR RICHARDS: Good morning.

MR. JARVIS: In May 2015 the Authority issued a Request for Proposal, RFP, for design-build services for Construction Package 4. And that extends approximately 22 miles in length through the counties of Tulare and Kern.

The general scope of CP4 is to design and construct the civil works necessary for the high-speed rail system including construction of at-grade, retained-filled, and aerial sections of the alignment.

CP4 is part of the first construction segment in our FCS, which runs through the Central Valley. The FCS consists of Construction Packages 1 through 5, which will ultimately serve as the backbone of the statewide system.

CP1 and CP2-3 were previously awarded, and the progress made to date with CP1 and CP2-3, coupled with the future award of CP5, represents significant and meaningful steps towards the goal of successful completion of the Central Valley segment and delivery of the overall system.

The CP4 procurement process is now complete and Authority staff is prepared to take the necessary steps to award the contract pending Board approval.

So the selection process consisted of two phases: an RFQ phase and an RFP phase.

In the first phase the RFQ was issued and the submitting teams were evaluated for their qualifications to perform the work. In the second phase the RFP was issued to each of the five qualified design-build teams in May 2015 with proposals due on November 25th, 2015. And all five proposers submitted timely proposals.

The proposals were analyzed and evaluated by a team of public employees including Authority staff and a representative of the City of Wasco, supported by the Authority's legal, financial, technical and rail delivery partner consultants.

Review of the proposals occurred in three stages. The first was a Pass/Fail and Responsiveness Evaluation. The second was a Technical Proposal Evaluation by the Technical Advisory Committee. And the third was the Final

Evaluation of the Technical Proposal by the Evaluation Selection Committee. And that Committee had ultimate responsibility for all aspects of the evaluation process.

So the proposals were evaluated and ranked based on a 30 percent for technical and 70 percent for price. Technical proposals were evaluated against the technical criteria described in the RFP. California Rail Builders, with a score of 25.98, received the top technical score.

Once the technical review was concluded evaluation of the price component of the proposals was held, with the lowest bidder assigned the full 70 points. Each proposer's price proposal score is based on the total proposal price it submitted. The total proposal price consists of both a fixed bid price and a variable bid price.

The fixed bid price will be included in the contract price as a lump sum payment for the design and construction work. The variable bid price will be used to establish unit prices for any hazardous price remediation activities that are added by Change Order during the term of the contract.

The determination of apparent best value, based on a 70-30 point scale, was subsequently calculated with a maximum of 100 points for the total proposal score. California Rail Builders finished as the top ranked team

with a total proposal score of 95.98.

After confirmation by the Board limited negotiations will commence with California Rail Builders. Authority staff is pleased to note that the highly-qualified team of California Rail Builders had the highest technical proposal score, and the lowest total proposal price.

The bid was below the engineer's estimate of $400 million to $500 million for CP4, utilizing savings through alternative technical concepts. The estimate was based on the cost to design and construct the project and did not provision provisional sum work.

California Rail Builders comprised of Ferrovial Agroman US Corporation, has been active in the North American transportation industry since 1999. And Ferrovial's experience includes some of the largest, most complex transportation projects in the United States. Over the past eight years Ferrovial has been awarded seven major design-build contracts in North America totaling $8 billion.

Internationally, Ferrovial has designed and constructed more than 65 high-speed rail projects totaling more than 1,200 miles. They have also laid more than 2,900 miles of high-speed railway in Spain.

The contract issued for design-build services for

CP4 will also include the 30 percent small and disadvantaged business participation goal adopted by the Authority Board of Directors. Specifically, CRB commits to achieving the goal of 30 percent participation by small businesses, with at least 10 percent to disadvantaged business enterprises, and 3 percent to disabled veteran business enterprises.

Now for a little bit of information on the contract prices -- the total proposal price consists of the fixed bid price and variable bid price for hazardous waste remediation, which is $347,557,000. The total contract allotment for the CP4 design-build contract also includes provisional sums and contingency.

Provisional sums are frequently included in major infrastructure projects to provide for items of work that must be performed and cannot be quantified in advance. The Authority has utilized limited provisional sums in CP1 and CP2-3.

Because there was insufficient information to accurately estimate the price for utility relocation and protection work, for PG&E, AT&T, and LEVEL 3 communications facilities provisional sums in the total amount of $107 million will be included in the contract for the direct cost of the design and construction of the work.

Provisional sums eliminate the need for proposers

to include significant contingencies in their bids, which would result in higher proposal prices.

The CP4 design-build contractor remains responsible for the management and coordination of this utility work. Provisional sums will be expended through individual task orders that establish the scope, cost and schedule for the work to be performed.

Contingencies are typically included in large contracts of this nature, but are not included in the contract price. A contingency analysis for risks related to this contract will be presented to the Board at a subsequent meeting.

So to summarize the items for contract purposes, the total contract price includes the fixed bid price and the provisional sum. The total variable bid price and contingency are not included in the original contract price. Thus, the CP4 design-build total contract price is $444,247,000.

The Board is requested to authorize the CEO or a qualified designee to take all steps necessary to negotiate and enter in to a contract with California Rail Builders, including the execution thereof on behalf of the Authority, in the total contract price amount of $444,247,000 for a term of approximately three years, or until CP4 project completion.

So I would be happy to answer any questions you may have.

CHAIRMAN RICHARD: Mr. Rossi?

BOARD MEMBER ROSSI: Scott, I just want be sure I understand.

MR. JARVIS: Okay.

BOARD MEMBER ROSSI: The 444, does that include contingencies or not?

MR. JARVIS: It does not.

BOARD MEMBER ROSSI: It does not. So if you add the contingencies to this number -- so when you add the contingencies to that number, is that within the projected budget we have for this segment?

MR. JARVIS: Yes, we are within the budget.

BOARD MEMBER ROSSI: Okay, great. And the second question I have for you is when you look at page 7, and when you talk about the $107 million --

MR. JARVIS: Yes.

BOARD MEMBER ROSSI: -- at the very bottom, what comfort do you have that this number is truly realistic given some of the other issues we've had earlier on?

MR. JARVIS: Yeah. We are conservative with that number.

We must remember though the reason we're putting it in provisional sums, is because there is not enough

information for anybody, at this time, with the design not advanced far enough and the physical determination of the location of the utilities, for anybody to completely accurately estimate it, including the proposers. So we attempted to be quite conservative in that number.

And we did base it upon unit prices that we've learned from CP1. We also based it upon, to the best of our ability, actual estimates of the linear feet of the different types of utilities. Instead of a gross estimate of a lane mile, and an estimate by lane mile, we estimated based upon the specific utilities, to the best of our ability the quantities of those utilities, and the current unit prices.

CHIEF EXECUTIVE OFFICER MORALES: And Scott, there is -- the contingency we've been talking about is the overall contingency assigned to the contract. There is contingency built into this figure, though.

MR. JARVIS: There is, yes.

CHIEF EXECUTIVE OFFICER MORALES: Right.

CHAIRMAN RICHARD: Okay. Vice Chair Richards?

VICE CHAIR RICHARDS: Thank you.

Scott, I just want to reconfirm something. Have we, in fact, for the purposes of our risk assessment -- have we already defined what the contingency is?

MR. JARVIS: No, we have not.

VICE CHAIR RICHARDS: I just thought I must have misunderstood the answer to Director Rossi's question.

BOARD MEMBER ROSSI: Well, given that statement how do I know there's a contingency in this number?

CHAIRMAN RICHARD: If it's not?

BOARD MEMBER ROSSI: Well --

CHIEF EXECUTIVE OFFICER MORALES: Let me say --

BOARD MEMBER ROSSI: -- he just said there was, so that's what I want to understand. In the 107 is there a contingency number or not?

MR. JARVIS: In that specific estimate, yes. We have not done an overall contingency assessment for the project.

CHIEF EXECUTIVE OFFICER MORALES: For the contract.

MR. JARVIS: Yeah, for the overall contract. But for the specific estimate for the utility --

BOARD MEMBER ROSSI: Well, but you're -- we have, in fact, because we've estimated contingencies for the entire project.

CHIEF EXECUTIVE OFFICER MORALES: It's the specific risk-based contingency as we have done on the previous contracts, has not been brought to the Board for approval --

VICE CHAIR RICHARDS: Yeah, it's not there yet.

CHIEF EXECUTIVE OFFICER MORALES: -- that is the very specific tied to the other elements of the contract.

VICE CHAIR RICHARDS: That's going to be in a couple of three months, as I understand it.

CHIEF EXECUTIVE OFFICER MORALES: That'd be --

VICE CHAIR RICHARDS: Correct.

CHIEF EXECUTIVE OFFICER MORALES: It will come subsequently, as we have with the others, and that's based on the detailed assessment of the particulars of this contract.

And just again to clarify, within the specific issue of utilities we added contingency to what was the amount in that line item. But the overall contingency for the contract has not been presented to the Board yet.

BOARD MEMBER ROSSI: It hasn't been presented to the Board, but it has been approved in effect in the Business Plan, because you cannot have the Business Plan without those contingencies.

CHIEF EXECUTIVE OFFICER MORALES: Right.

BOARD MEMBER ROSSI: So I would suggest to you all that we have approved a contingency; it's there. Whether or not you want to come back and change it is a different issue.

CHAIRMAN RICHARD: Well, is it -- Let me just go out of turn and just so we can stay on this point. Is it

more accurate to say, Director Rossi, that we have not yet assigned that relevant portion of the overall contingency to this contract?

BOARD MEMBER ROSSI: Well, now that's correct. As Scott said this is --

CHAIRMAN RICHARD: Right. We're saying that there is a contingency budget out there. We have not allocated a portion of that contingency budget specifically to this contract yet.

BOARD MEMBER ROSSI: Only in a technical sense, right, in a voting sense. You have a Business Plan where your contingency is listed across all of this already. This is somewhat a sham conversation in that regard. It's there.

If he changes that number that's in the Business Plan then we're going to have another set of conversations, for the justifiable reasons, but there is a contingency. The number's there, John runs it regularly when he does his stuff. So at the end of the day, yes we haven't approved it as Jeff says, he's absolutely correct. But there is a Plan that's been approved by the Board that covers this segment.

And when they come in for this final approval, or allocation as you used Mr. Chairman, and it's different than what's in the Plan -- if it's lower I don't think

anyone's going to care -- if it's higher you have a different set of conversations.

VICE CHAIR RICHARDS: So as long as that contingency comes in, and it still overall is less than that's already been budgeted across all of the Valley, then we're still within budget?

MR. JARVIS: Correct.

VICE CHAIR RICHARDS: Okay. The other question I wanted to ask you is, so with regards to the 107 million, how are we -- what's the role that we play in oversight and/or overseeing and managing what that number actually becomes as its presented to us by the contractor?

MR. JARVIS: Well, we have a project and construction management team that performs the contract administration for the project, with the Authority in an oversight role.

So to expend any part of that $107 million a specific Task Order needs to be developed. And that specific Task Order will specify the scope, the cost, and the schedule for that specific utility protection or relocation work. And so our role is to oversee that process and to ensure that those funds are effectively and efficiently expended with clear task orders that put that risk on the design-build contract for that specific work.

VICE CHAIR RICHARDS: And having reviewed a

detailed cost estimate with unit costs in all those things, so that we can cooperate the numbers that are being presented to us?

MR. JARVIS: That's correct. That's part of verifying the cost. That's part of that process.

VICE CHAIR RICHARDS: Okay. And within all of this where are the -- where, if any, are any cost for railroads for UP and BNSF? Are they -- is there any cost that we've had to consider with regards to CP4?

MR. JARVIS: No.

VICE CHAIR RICHARDS: None?

MR. JARVIS: Not in this $107 million.

VICE CHAIR RICHARDS: Okay, but what about within the entire 22 miles of CP4?

MR. JARVIS: That's incorporated in the design-builder's --

VICE CHAIR RICHARDS: That's in his price?

MR. JARVIS: -- in his price, yes.

VICE CHAIR RICHARDS: Okay. And no exposure to us on that then?

MR. JARVIS: No.

VICE CHAIR RICHARDS: Great.

Thank you, Mr. Chairman.

CHAIRMAN RICHARD: Okay. I'm sorry, Ms. Selby, I think Mr. Curtin was next and then I'll --

BOARD MEMBER CURTIN: So I appreciate the conversation, because I had the same concerns. I'm a little confused by provisional versus contingency versus variable.

I don't see the variable in the total cost and maybe you can explain that, but before I get into that -- so the provisional are associated with known risks that we're familiar with from the other contracts meaning the movement of utility issues and things like that? And the contingency, are risks that we're just not prepared to even identify at this point?

MR. JARVIS: Well, I think a reasonable way to look at it is that provisional sum work is work that we know we have to perform.

BOARD MEMBER CURTIN: Right.

MR. JARVIS: We know we need to protect and relocate utilities.

BOARD MEMBER CURTIN: Right, but there wasn't enough data concerning that to put it into the bid specs?

MR. JARVIS: It was not possible for the proposers to develop an accurate estimate for a lump sum fixed bid price.

BOARD MEMBER CURTIN: Okay.

CHIEF EXECUTIVE OFFICER MORALES: Or for us to be certain that in fact they were bidding on the same things,

because of that potential difference.

MR. JARVIS: Right.

BOARD MEMBER CURTIN: Okay, so that's a risk now that we've accepted in terms of -- and we'll get to the risk question in a minute -- but so the provisional is the portion of the project that we know has to be done, but we're just not clear on exactly what that --

MR. JARVIS: Exact, nobody can estimate the exact cost.

BOARD MEMBER CURTIN: Okay. So then the contingency are issues that arise during the course of the project that we're not prepared to identify, because we don't know what they are?

MR. JARVIS: Correct. I mean, you have contingencies that you know have a likelihood to occur that may not. And then there's also a certain portion of unknowns that come up.

BOARD MEMBER CURTIN: So where's the total variable, the 10 million? It's not in the final product or the final cost.

CHAIRMAN RICHARD: It is.

MR. JARVIS: Yeah, I think.

CHAIRMAN RICHARD: It is.

BOARD MEMBER CURTIN: Is it in the 107 -- when I see contract price 337 --

CHAIRMAN RICHARD: It's the difference between the 337 and the 347.

BOARD MEMBER CURTIN: Yeah, I know but if you turn the page the contract price is based on 337 and then the provisional sum of 107. Is it in the 107?

MR. JARVIS: No, it is not.

CHAIRMAN RICHARD: No. I was going to make that point that I thought there was an inconsistency in the way it was presented.

MR. JARVIS: It is a separate line item, the amount for the total variable bid price and what it is specifically for, is for the remediation of hazardous waste.

BOARD MEMBER CURTIN: Well, do we do that?

MR. JARVIS: And it's the contractor --

BOARD MEMBER CURTIN: So where is it in the 444?

MR. JARVIS: It's in the total contract allotment, but it's not in the contract price.

CHIEF EXECUTIVE OFFICER MORALES: It's on page 7.

CHAIRMAN RICHARD: Actually, it's --

BOARD MEMBER CURTIN: I know it's under page 7, because I can --

MR. JARVIS: It's for a basis of bid. And if we have to expend that money --

BOARD MEMBER CURTIN: Okay, all right.

MR. JARVIS: We don't know if we have to -- it's for bids comparison purposes.

(Colloquy between Board Members.)

MR. JARVIS: And then it's set aside and then if it's -- hazardous waste is contacted or come upon we have that ability to specify that.

CHAIRMAN RICHARD: Actually, if I can try to be helpful here, we'll see. But if you jump off of the descriptive part, which I think creates some confusion, I actually think it was laid out pretty well in the Resolution.

So if you look at the first page of the Resolution you see that fixed bid price is 337. That's the winning contractor price, a fixed price to do a known increment of work, plus a provisional sum of 107 million. That’s the amount that will be done for the provisional work that we've talked about.

And then the next paragraph said that the CEO would also be authorized to include an additional amount for up to $10 million for a variable bid price for hazardous waste.

BOARD MEMBER CURTIN: All right, so it's another contingency issue in a sense. Okay, that helps.

MR. JARVIS: It is in a sense, but what we've done is we've established the prices through completive

bidding. So if the hazardous material is encountered we have unit prices established that we could write the Change Order and use those competitively-bid unit prices.

BOARD MEMBER CURTIN: Okay. So in conclusion here -- well first of all is there right-of-way issues involved in that, or is that in contingencies, or is that a whole separate --

CHIEF EXECUTIVE OFFICER MORALES: That's a separate.

BOARD MEMBER CURTIN: Okay, it's separate.

So lastly, where does the risk transfer fall into these contingency elements? The provisional sums, the transfer or the variable sums, and the contingency sums? At that point is the risk transfer back on our shoulders or is it part of the design-build entity's problem?

MR. JARVIS: Well, we're always looking to transfer reasonable risk to the design-builder.

BOARD MEMBER CURTIN: Yes, we are.

MR. JARVIS: And we're able to do that through how we write the change orders and how we write the task orders. And so you base it on agreed fixed prices for the change orders and the task orders. And then the contractor is required to complete that work within that fixed price.

BOARD MEMBER CURTIN: So the contract entity is clearly responsible to do what they say they're going to do

for the 337 million portion of the project?

MR. JARVIS: Correct.

BOARD MEMBER CURTIN: So then the 10 million portion of the project that may come into the hazardous waste area, how does that fall on their shoulders if it's not clear that they'll even have to deal with that? Did you make an estimate that there's no way we can find more than $10 million worth of hazardous waste, or how do they share that responsibility?

MR. JARVIS: Because they have committed to a fixed unit price for the remediation for the hazardous waste.

BOARD MEMBER CURTIN: Okay. Wait and then we have estimated how much there might be?

MR. JARVIS: Correct.

BOARD MEMBER CURTIN: All right, so if there's more than that then the transfer falls back, a little bit, towards us. But at least within the same amount --

MR. JARVIS: From the financial end, but they don't get paid any more for their unit price.

BOARD MEMBER CURTIN: Okay, the unit price is fixed.

MR. JARVIS: The unit price is fixed.

BOARD MEMBER CURTIN: And then the contingency issue is a transfer issue that -- how does that work? They

can't really be responsible for contingencies that nobody can predict, am I --

CHAIRMAN RICHARD: Well, I think about contingency in a different way and let me just see again, if I can be helpful. Contingency is the amount that we set aside to deal with circumstances that were not already addressed in these other things we're talking about.

BOARD MEMBER CURTIN: Right.

CHAIRMAN RICHARD: So for example, I think this would be -- and Scott, please correct me if I'm wrong -- but the reason we would have a contingency is let's say we stubbed our toe, and did not deliver to the contractor a key right-of-way piece that the contractor had been counting on, as part of their bid.

BOARD MEMBER CURTIN: Yeah.

CHAIRMAN RICHARD: Well, that's on us.

BOARD MEMBER CURTIN: I mean --

CHAIRMAN RICHARD: That's on us.

BOARD MEMBER CURTIN: Okay, that's my point. That's what I'm asking.

CHAIRMAN RICHARD: But somebody's got to pay for that somewhere, so we set aside a contingency for things like that.

BOARD MEMBER CURTIN: Okay.

MR. JARVIS: And change of scope.

CHAIRMAN RICHARD: Yeah, change of scope.

BOARD MEMBER CURTIN: Okay, so one last question then?

CHIEF EXECUTIVE OFFICER MORALES: Yes?

BOARD MEMBER CURTIN: Where was the original estimate; where were all of these pieces in the original estimate of 4-to-500 million? Were they also above and beyond the original 4-to-500 million?

CHIEF EXECUTIVE OFFICER MORALES: Yes, that's an important point, because there's been some question raised and you could have questions. The estimate we put out of 4 to 500 is for the scope of work that was put out to bid.

BOARD MEMBER CURTIN: And then that the contract came in at 347, all right.

CHAIRMAN RICHARD: And so against the 4 to 500 came the apparent winning bid of 347. The other amounts -- the utility amount is a separate line item not built into the bid. So you have to add that to the 4 to 500 million and add that to the 347.

BOARD MEMBER CURTIN: All right. Well having asked all these questions I do want to say that I am really, really pleased with the technical proposals and the outcome of the technical proposal although I'm a little concerned that there's no experience issue here. But it's clear that we really have some highly capable firms here.

The difference between the bids is extraordinary. There's a lot of money difference. And I'm a little baffled by that, but I'm going to take low price for an answer here and let the winning bidder figure that portion of it out. But the fact that we have four -- the fifth one was not scored on the technical -- all within a point, a point and a half of technical capabilities, is a pretty, pretty profound and exciting development from where I'm -- we don't have any amateurs looking at this now. We have the people who know what they're doing.

And so that's important to me.

CHIEF EXECUTIVE OFFICER MORALES: Just one point of clarification, qualifications and experience is looked at in the RFQ stage. And so they present their comparable experience and also provide us --

BOARD MEMBER CURTIN: Okay, because I didn't see it in the technical evaluation.

CHIEF EXECUTIVE OFFICER MORALES: -- with references that we check.

BOARD MEMBER CURTIN: Right, right.

CHIEF EXECUTIVE OFFICER MORALES: And so that is absolutely looked at and they don't pass through to the RFP stage unless we are satisfied that they've met the qualifications.

VICE CHAIRMAN RICHARDS: So when you call

somebody in Spain and say, "How's the train running? Looking good? Okay, you're in."

All right, no that to me was a very important development, that we got top-flight firms really sharpening their pencils here.

CHAIRMAN RICHARD: Vice Chair Selby has been patient.

VICE CHAIR SELBY: I have a question that's kind of I think along the same lines, really trying to understand risk and how we're taking it, and how we're not. And it's in the RFP itself in the section on limitation on time extensions. And it says, "Any extension of a completion deadline will exclude any delay to the extent that it did not impact the critical path affecting a completion deadline."

And I'm just interested in understanding who determines the critical path? How is a critical path determined?

MR. JARVIS: Okay. The design-builder is required to submit a progress schedule called a Critical Path Method Progress Schedule. That is approved by the Authority ultimately, and on that it determines what the critical path is, which is the longest path to construct the project. There's always one longest path to finish the project, of the subsequent activities.

There's a lot of other important activities that are performed that aren't on that longest path to complete the work. So if there is a delay to the contractor caused by the Authority, but it's on one of those many paths that aren't on the critical path, the contractor does not get a time extension for that delay.

And the reason for that is because the scheduled completion date is just based upon the critical path. So if there's non-critical paths that are delayed -- that's referred to as float that they have in those paths, a certain amount of time are float -- you're using up that float, but you're not delaying the overall project because it's not on the critical path.

So therefore no time extension is granted.

CHAIRMAN RICHARD: Other questions? I have some, but I wanted to just give my colleagues a chance to go, not counting what I had already jumped in with. Okay.

Scott, just a couple things, I had one question about the process. I took note on the bottom of page 3. So as I understand the process there was a Technical Advisory Committee.

MR. JARVIS: Yes.

CHAIRMAN RICHARD: And it served to make recommendations to the Evaluations Selection Committee.

MR. JARVIS: Correct.

CHAIRMAN RICHARD: On the bottom of page 3 that you indicate, "As the entity with ultimate responsibility to evaluate and score the technical proposals the ESC also conducted its own independent review of each of the proposals and developed final consensus scores." I'd be interested to know, both now and in the future, whether the ESC made any material changes to the recommendations of the Technical Advisory Committee.

I mean as was just pointed out by my colleague, Mr. Curtin, the technical scores were fairly tightly tied together, but still it raises kind of a question in terms of **making sure that the process kind of proceeds apace. And if we constitute a Technical Advisory Committe**e, and then their work basically gets overruled by the Evaluation Selection Committee, I just think that's a matter of note. So I want to just raise that question.

MR. JARVIS: Well, I would say that it's not necessarily overruled, but there is -- it's very carefully considered what the Technical Advisory Committee comes up with by the Evaluation Selection Committee. So the Evaluation Selection Committee is also made up of technical experts at the higher level management level, so they do that independent review on their own.

And then they have a basis of when they receive the information from the Technical Committee of are they

agreeing? And if there are areas where there is some disagreement then they can drill down and determine, you know, what is driving it?

CHAIRMAN RICHARD: So their doing it contemporaneously? They're not like taking the input of the first one and then going back out and doing their own?

MR. JARVIS: Yeah, they're doing it essentially concurrently. You have a Technical Advisory Committee, yes.

CHAIRMAN RICHARD: That's what I thought, yeah. A better word, okay.

MR. JARVIS: Yeah, doing that review. The ESC is doing their own independent review, so they have a basis of when that Technical Advisory Committee provides their recommendations.

CHAIRMAN RICHARD: And just qualitatively, has it been the case on this or other contracts that there are big differences between those?

MR. JARVIS: Normally there are not big differences, no. And it's usually quite -- it lines up pretty well normally, when those independent reviews are compared.

CHIEF EXECUTIVE OFFICER MORALES: And that's one of the questions I asked during the process too, was were there significant differences in that, that caused

questions and should make us go back and reevaluate scores? And the answer has been no.

CHAIRMAN RICHARD: Okay.

Mr. Rossi?

BOARD MEMBER ROSSI: Can you tell me, Scott -- I hadn't really thought about it until the Chair raised the question -- what's the difference in the experiences and technical knowledge between the two groups?

MR. JARVIS: Well, generally the Evaluation Selection Committee, they're the higher level managers. The Technical Committee --

BOARD MEMBER ROSSI: So we know they don't do any work.

MR. JARVIS: The Technical Committee is comprised of the technical experts of the areas being evaluated. So that's a general -- you know, some on the Technical Committee have less experience, some have extensive experience. But generally those are the roles and responsibilities -- the technical side for the Technical Committee -- and the overall management and administration of the process by the Evaluation Selection Committee.

BOARD MEMBER ROSSI: So if it's okay with you, Mr. Chairman, I'd like to see --

CHAIRMAN RICHARD: Who they are?

BOARD MEMBER ROSSI: -- who they are and their

resumes.

CHAIRMAN RICHARD: Well, it's not only okay with me, Mr. Rossi, but that was exactly the thing I was about to raise next. So yeah, I do think -- I mean, I went back and forth on thinking about whether we should ask for this, because there are reasons that I can imagine why this is not something necessarily that we should ask for. But I do think that given this interaction between the various technical folks and who they are -- and I know sometimes when you say that there are public sector people on the evaluation that doesn't necessarily mean that they're all from the Authority. So yeah, I think going forward its probably good to list who these folks are.

And my hope would be that it would enhance confidence in the decision making, but it would at least address any subtle concerns that people might have.

MR. JARVIS: Okay.

CHAIRMAN RICHARD: Okay. So then Mr. Curtin raised some of the issues that I had wanted to. I guess I just want to -- I think I'm done with my questions on it. I just want to make this point, so that maybe we can try to be a little more clear for the public on this.

So let me make a couple of points on here and Scott, the last thing I want to do is say anything that's inaccurate. So please do not hesitate to say that that's

wrong. Just pretend you're Ivor Sampson and don't worry about saying something that might hurt my feelings.

So Danny Curtin raised, I think a really important point here, which it seems to me that in the management of an enterprise like this it's really important for people to carefully think about risk transfer. It's tempting to stand up and say, "We want to transfer all the risk to the contractors and the private sector."

And you can do that. We can transfer all the risk to them. We would pay an inordinate amount of money to do that because the private sector is going to price that risk. And they're going to price those risks into their bid. And the bids are going to be much more costly.

MR. JARVIS: Right.

CHAIRMAN RICHARD: So it seems it's important, I think, for people to understand what we have here. First of all we have a basic contract. No one is suggesting that the entire cost of the project, or even this segment of the project, is embodied in this contract. There's right-of-way, I mean there's other costs. Some of those costs are administrative costs and so forth. But this is the cost of the physical construction of this segment of the project.

And what you've done here, which I think is exactly the right balance for this 22-mile segment, is you've basically broken it into pieces so that we can best

manage the risk.

The first piece is the steel and concrete. What's it going to take to actually build this stuff, move the dirt, build the viaducts, the under-crossings, and so forth? And for that we've told the private sector, "You give us your best estimate and you live with it."

MR. JARVIS: Correct.

CHAIRMAN RICHARD: "Assuming that we don't screw anything up, you live with it." And so they do take that risk. And that has been highly competitively bid here, which I applaud that we continue to attract an international cohort of companies like this. And that's the $337 million winning bid for that. And the contractor's basically going to live with that.

Then the next piece we said well, "We know that there are things that the contractor -- they may not have access to where all PG&E's underground lines are. They don't have access to where AT&T's underground lines are. And if they try to guess at that, because we tell them go give us a fixed price, then a) they're going to definitely pad that, because of uncertainty. And b) as Mr. Morales said we don't know if we'd have an apples-to-apples comparison, because we don’t know that everybody would be looking at the same thing.

So we have then taken that as a different risk

equation and said for that, this is what we think it'll cost. And as we actually dig up the ground and see where these things are we'll assess those costs. And so we have not tried to put that risk on them, because that would be too expensive. There's a better way to do it, which you have done.

Third, there's this piece of the hazardous waste remediation. And again, we don't know how many tons of asbestos are going to come out of some of these buildings that we have to tear down. So we found a balanced way to shift the risk there, by asking the contractor to bid it on a unit basis.

And the winning bidder has said, "I will guess that I can take the material out for $96 a ton. That's on them. If it cost them $105 a ton they lose money. If it costs them $89 a ton they can make a little extra money.

So I think it's really important for people to understand that what you're doing here -- which I think I speak for my colleagues, everybody feels is the right approach -- is to segment the risks into different approaches, so that we find the right balance between how much risk we put on the private sector and how much risk we keep on ourselves. So that we get the performance that we want from them, the incentive that they have to manage that risk, but at the same time that we not overpay for that.

And so I think that's very important. And that's why, when people look at this and they say, "Well, wait a minute. Is it 337 or is it 444?" The price is what the price is for the entire program, but we ask people to come in and bid on the steel and concrete construction. They came in at 337. That's under the $4 to $500 million engineer's estimate for that component. And that part is indisputable. The fact that there're going to be other components is also indisputable. But let's compare apples to apples and not try to mix things up.

MR. JARVIS: Correct.

CHAIRMAN RICHARD: So Scott, if I've misstated any of that please let me know.

MR. JARVIS: You did not.

CHAIRMAN RICHARD: Okay.

Mr. Morales, did you want to add anything?

CHIEF EXECUTIVE OFFICER MORALES: I would just add that I would agree with everything you said. And say somewhat back to Mr. Curtin's question, that the difference in the prices then you see is something we work very hard to make sure we take advantage of, which is the competitive nature of the industry and allowing alternative technical concepts, better ideas. And so in that 337, which then gets to a risk issue because the risk is now on them to deliver it, based on how creative they got.

And there's probably two major factors contributing to the differences in price. One is competition, to what degree each of the teams sharpened their pencils and looked at how to be as efficient and productive in doing this. And then the other is the innovation that they bring to the project finding better ways to deliver it while meeting the underlying standards and requirements that we've laid out for all of them.

And so we feel very good that we've gotten that from world class teams. We've got some of the best thinking in the world being brought to this. And because of the way we've done this, we own all of the ideas of all the bidders.

And so not only do we take advantage with the California Rail Builders, but if there were alternative technical concepts proposed by any of the others that were not incorporated by the winning bidder, we can give those ideas to them and incorporate for additional efficiencies. And so it’s a process that we think is really playing out well.

BOARD MEMBER CURTIN: And how do we translate those particular ideas? If we have a contract for 347 how do we translate that into lower costs? By saying, "If you do it this way it'll be cheaper." And they'll say, "Okay. We'll have to check it out, but it's still costing you the

347."

CHIEF EXECUTIVE OFFICER MORALES: Do you want to talk the process, Scott?

MR. JARVIS: Sure, sure.

I mean, we would translate that savings through a Change Order and so would be proposed to the contractor. And, you know, the contractors normally want to do things as efficiently as they can and get out of there as quickly as they can. So if there's an opportunity to do things more efficiently they're usually open to it and open to a contract price credit.

The Authority would receive that savings through the credit that would be administered through that Change Order.

BOARD MEMBER CURTIN: So they have the authority to reject it as well, because it may complicate their view of how they perform?

MR. JARVIS: They could reject it. That's part of the negotiation process.

CHAIRMAN RICHARD: It's a negotiation

MR. JARVIS: From a pure contract administration standpoint we could direct them to do that and then they could submit it as a dispute. But normally, we don't want to do that.

BOARD MEMBER CURTIN: Yeah, Okay. See that's the

risk transfer issue.

MR. JARVIS: Normally we work with them, yeah.

BOARD MEMBER CURTIN: All right, yeah.

MR. JARVIS: There is one other way that savings can be instigated, not alternative technical concepts, but savings. And that's value engineering change proposals, which the contractor would propose to the Authority. And in that method the savings is split 50-50, with the Authority and the contractor.

BOARD MEMBER CURTIN: Okay. Thanks, Scott.

CHAIRMAN RICHARD: And finally on this -- and then we'll take a vote -- in a side bar I asked Mr. Morales why the staff had not brought forward the allocated contingency amount for this contract today with the contract. And what he said to me was, "Because the ultimate allocation of a contingency will be based on the outcome of those negotiations and what the final costs are and what the final elements of it are." And so that's when they'll look at that.

Okay. And I would just say that any contractor watching this process up here would want to get out of Dodge as quickly as possible. I don't think there's any doubt about that.

Any other questions or --

BOARD MEMBER ROSSI: So moved.

VICE CHAIR RICHARDS: I second.

CHAIRMAN RICHARD: It was moved by Mr. Rossi, seconded by Vice Chair Richards.

Secretary, please call the role.

Thank you Scott.

MS. NEIBEL: Vice Chair Richards?

VICE CHAIR RICHARDS: Yes.

MS. NEIBEL: Vice Chair Selby?

VICE CHAIR SEBY: Yes.

MS. NEIBEL: Director Rossi?

BOARD MEMBER ROSSI: Yes.

MS. NEIBEL: Director Correa?

BOARD MEMBER CORREA: Aye.

MS. NEIBEL: Director Curtin?

BOARD MEMBER CURTIN: Yes.

MS. NEIBEL: Chair Richard?

CHAIR RICHARD: Yes.

So let's say congratulations to Ferrovial and its partners in California Rail Builders. And welcome to the program. Thank you.

VICE CHAIR SELBY: (Indiscernible)

CHAIRMAN RICHARD: I'm sorry, Ms. Selby?

VICE CHAIR SELBY: I'm counting.

CHAIRMAN RICHARD: You're counting, okay. Counting's a good thing to do.

Speaking of counting, our CFO, Mr. Fong?

MR. FONG: Good morning Mr. Chair, Board Members, and Mr. Morales. I'm Russ Fong, your Chief Financial Officer. Today I'm going to present agenda item four and it's for the Board to consider releasing a request for a proposal to re-solicit our financial advisor services.

As our organization transitions from planning to project development and construction the new financial advisor will better position the Authority in these four critical areas.

Number one, back office operations, which includes enhancing our internal controls, and validating and maintaining the integrity of our financial data.

Number two, financial reporting and performance reporting to allow the Board, stakeholders, and management to make strategic decisions based on quality financial data, and actively manage operational performance using timely and accurate information.

Number three, the development of a financial system that will meet the needs of a mega project like ours.

And number four, developing funding plans and procurement strategies that will continue to move this project forward in an efficient and cost effective manner.

This will be a competitive RFP with the

highlights being a four-year term. The contract is not to exceed $40 million. Work authorizations will be issued to enhance contract management and will use an award primary, and a secondary contractor, to maximize industry expertise.

The second highest -- the two top scoring contractors will be awarded. The scoring will be as followed: 70 percent technical evaluation, which includes 50 percent for the written technical, 20 percent for the interview, and 30 percent for the cost.

Proposals must meet the Authority's SB/DVBE 30 percent goals and a mandatory 3 percent DVBE participation.

This concludes my presentation. And I'll be happy to answer any questions.

CHAIRMAN RICHARD: All right, let me start right to left, anybody with questions on this?

Vice Chair Richards?

VICE CHAIR RICHARDS: Thank you, Mr. Chair.

Russ, just a few things, but first can you just give us a little bit of background on how the contract amount, or the not to exceed number, was developed?

MR. FONG: Based on historical data for the last two years, with the introduction of FI$Cal, the back office operation needs, and the introduction of Cap and Trade. or the last two years, we've been monitoring how much our burn rate would be for each workload, each task.

To add to that, we're going to introduce a workload, a work authorization process, so that way I can actually look at each individual assignment, and be able be able to negotiate costs going forward. But it's based on two years of historical data that we've used in come and come across, that's basically $10 million per year. Currently, we're at 12 million, but I do anticipate over time that we will be able to ramp downwards.

VICE CHAIR RICHARDS: Okay. And how do we manage a contract like this. So we're talking about is it a four-year term you're proposing?

MR. FONG: Yeah.

VICE CHAIR RICHARDS: So how do we manage it to ensure that the amount that has been agreed upon, a not to exceed number, will actually last through four years?

MR. FONG: Again, with each assignment we're going to introduce the Workload Authorization Form, which basically will say each task -- we'll negotiate what the contractor -- what skill sets will be needed, and how quickly and timely, will the assignment be used?

With that, we'll calculate how much each would cost based on salaries. It’s a time and materials contract. And then we'll go from there to monitor to make sure we can meet our needs.

Basically, we're going to closely monitor each

assignment to make sure that we stay within our budget for this round.

VICE CHAIR RICHARDS: Okay. And the one section in here, I think there's a primary and a secondary, so that was an interesting change, it seems to me. So can you explain that?

MR. FONG: Yeah, we have nine tasks. And what I wanted to introduce was -- and this was our first one for high-speed rail -- is to be able to maximize expertise out there. You know, there are some firms that are really good at certain tasks and there's other firms that are really good at other tasks.

So the concept is to have a primary and a secondary. The primary doesn't have enough resources per se then we can go to the secondary and issue that Workload Authorization to them.

VICE CHAIR RICHARDS: So the purpose is to take the best advantage of both of them, but also probably to control time?

MR. FONG: Exactly.

VICE CHAIR RICHARDS: I see. And just to be clear, internally your shop developed the $40 million budget; is that correct?

MR. FONG: That's correct.

VICE CHAIR RICHARDS: So it wasn't through any

outresourcing to anybody else. And clearly I'm going to -- I know that our advisor in the past has been, and still is, KPMG. So just to ensure for the record, KPMG has had nothing to do with the development of what the budget should be for the next four years?

MR. FONG: That's correct. This is based on our own numbers, based on historical data, and actual costs.

VICE CHAIR RICHARDS: Okay, all right.

Thank you, Mr. Chair.

CHAIRMAN RICHARD: I had some questions -- oh, go ahead, Ms. Selby?

VICE CHAIR SELBY: Yes. I just have one question or sort of a comment question. It's in the RFP itself you have under "Client References" that you need at least one reference must be public entity.

And first of all I applaud you that you don't need nothing but public entities, I think that's really great. But I'm wondering should a reference be from a public entity that has nothing to do with infrastructure? Do you think that matters for the people that you're looking for?

MR. FONG: That's a good point. Actually, we could add a little clarification, maybe match in a public entity such as ourselves. So we can add that to the RFP, yeah.

VICE CHAIR SELBY: I think it needs to be broad enough so that you're not stuck with somebody necessarily who -- I don't know if I would say high-speed rail, but somebody who has some experience with infrastructure. To me it seems --

MR. FONG: At least as far as (indiscernible) --

VICE CHAIR SELBY: Yeah, yeah.

MR. FONG: Yeah. Okay, we'll add that. Thank you.

CHAIRMAN RICHARD: Now Mr. Curtin, did you have something?

BOARD MEMBER CURTIN: Yeah, you triggered a thought regarding the primary and secondary.

You kind of kind of indicated that if the primary didn't have the workforce capable of handling it you'd go to the secondary. That sort of leaves the discretion to the primary.

Do we have the ability in this contract to say, "You know, we think the secondary may have more experience in this area. We'd like them to handle this particular portion of the project," or does that sort of impinge on control?

MR. FONG: The primary does have a key say in that, but that's going through the negotiation of the Workload Authorization -- is when we sit down and talk

about what expertise do we need that's when the negotiations back and forth will see if the primary is the right source to go for, or shall we look at a secondary?

BOARD MEMBER CURTIN: Uh-huh, okay so there --

MR. FONG: So that's the beauty of this whole contract, is the negotiation for each task to ensure that we're getting the best quality for that.

But it is primary, the primary does have a key role in that, yes.

BOARD MEMBER CURTIN: All right.

MR. FONG: Yes.

CHAIRMAN RICHARD: Vice Chair Selby?

VICE CHAIR SELBY: I'm looking the criteria for awarding points through the technical proposal, and I may be misreading it, but I don't see any points for the small business preference? I see a total technical proposal score of 500. And then I see, above that, 125 points for examples of prior work, but nothing under small business or DVBE incentives.

MR. FONG: Actually, the 30 percent goal is applied. You have to hit the 30 percent and also we added a 3 percent DVBE mandatory. So you have to meet those requirements. And then what you're looking at, the 70/30 is the evaluation once they pass that.

VICE CHAIR SELBY: I see. Thank you.

MR. FONG: You're welcome.

CHAIRMAN RICHARD: If there are no other questions, I'll ask mine.

Okay. It really is just a sort of an observation and request, which is that Russ, I think you did a very good job in the briefing memo, talking about the changing needs for this. And I thought it was somewhat parallel to how we move to the Rail Delivery Partner on that side, that we're moving in a different phase of the project.

You also pointed out that now the reporting and managing responsibilities, particularly with the State switchover to the new FI$Cal System and so forth, is putting a tremendous resource burdens on your staff. And you're trying not to build up too much of a permanent staff.

MR. FONG: Okay.

CHAIRMAN RICHARD: I thought all that was clear and I thought it was all good.

When I went to the Appendix A to look at the Scope of Work I didn't see a lot of those elements in the Scope of Work? A lot of the Scope of Work is focused on evaluation of proposals, working with people in the bid process, and so forth.

Rather than get into the detail here since the Resolution says that the Chief Executive Officer or his

designee, who I presume is you, can move forward with this contract I would just request that you guys go back and take another hard look at the Scope, because I don't want to get into Change Order situations where somebody comes in and says, "Well, yeah. You may have said that in the briefing memo to the Board, but the Scope of Work says we do these things. And now you want me to work on FI$Cal and it's not really there."

So I'd really like to make sure that we flanged up your actual requirements for your department with this.

And for example, one of the things I noticed was there's nothing in here that talks about evaluation of unsolicited proposals. We may get an unsolicited proposal somewhere. So just can I ask you guys to go back and take a look at that, and just kind of let us know if you make any material changes to it.

I have no problem with supporting, going forward with this, and with your basic approach. But I got a little uncomfortable that I did not see kind of a good correlation between what was in the Scope and what was in the description of the need.

MR. FONG: Yeah, if I can add to that?

I know in the original version -- and my fear is I think the Board received the original -- Task 9 was left out. And Task 9 is office support, operation support in

FI$Cal.

CHAIRMAN RICHARD: Okay.

MR. FONG: So I apologize for that.

CHAIRMAN RICHARD: No, just so long as you know it, I mean that's fine. But it just --

MR. FONG: Yeah. We dropped Task 9 and I think it was a formatting (indiscernible) --

CHAIRMAN RICHARD: So just one last pass through to make sure that this is really doing what you guys want it to.

And because the Resolution is just that you guys can go forward with this, I mean I trust you to go forward with it in the right way. I just want you to take another look at it.

MR. FONG: Thank you.

CHAIRMAN RICHARD: Okay.

All right, with that I'll entertain a motion.

BOARD MEMBER ROSSI: So moved

CHAIRMAN RICHARD: Moved by Mr. Rossi --

VICE CHAIR SELBY: (No audible response.)

CHAIRMAN RICHARD: -- seconded by leaning in Director Selby.

Please call the roll?

MS. NEIBEL: Vice Chair Richards?

VICE CHAIR RICHARDS: Yes.

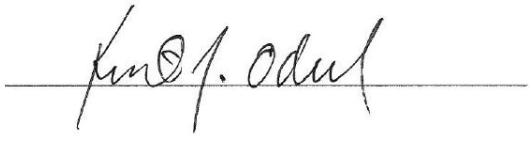
MS. NEIBEL: Vice chair Selby?
VICE CHAIR SELBY: Yes.
MS NEIBEL: Director Rossi.
BOARD MEMBER ROSSI: Yes.
MS. NEIBEL: Director Correa?
BOARD MEMBER CORREA: Yes.
MS. NEIBEL: Director Curtin?
BOARD MEMBER CURTIN: Yes.
MS. NEIBEL: Chair Richard?
CHAIRMAN RICHARD: Yes
Thank you very much, Mr. Fong.
MR. FONG: Thank you.
CHAIRMAN RICHARD: Okay. With that the Board will now enter into Closed Session -- and the room is to be designated. And we'll come back afterwards and report on any actions that emerge from that. Thank you.
(The Board convened into Closed Session at 12:08 p.m.)
(The Board reconvened at 1:07 p.m. and having no further business, Chair Person Dan Richard adjourned the HSR Board Meeting at 1:08 p.m.)
--oOo--

REPORTER'S CERTIFICATE

I do hereby certify that the testimony in the foregoing hearing was taken at the time and place therein stated; that the testimony of said witnesses were reported by me, a certified electronic court reporter and a disinterested person, and was under my supervision thereafter transcribed into typewriting.

And I further certify that I am not of counsel or attorney for either or any of the parties to said hearing nor in any way interested in the outcome of the cause named in said caption.

IN WITNESS WHEREOF, I have hereunto set my hand this 22nd day of January, 2016.



Kent Odell
CER**00548

TRANSCRIBER'S CERTIFICATE

I do hereby certify that the testimony in the foregoing hearing was taken at the time and place therein stated; that the testimony of said witnesses were transcribed by me, a certified transcriber and a disinterested person, and was under my supervision thereafter transcribed into typewriting.

And I further certify that I am not of counsel or attorney for either or any of the parties to said hearing nor in any way interested in the outcome of the cause named in said caption.

IN WITNESS WHEREOF, I have hereunto set my hand this 22nd day of January, 2016.

Myra Severtson
Certified Transcriber
AAERT No. CET**D-852